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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,750	06/04/2002	Lucas Lakhdar Bacha		4993

7590 04/01/2005

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EXAMINER

CONLEY, SEAN EVERETT

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/078,750

Applicant(s)

LAKHDAR BACHA, LUCAS

Examiner

Sean E. Conley

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6/4/02, 10/7/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2002, 07 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: Claim 1 recites in line 2, "a chamber having a set of wall and a ceiling panel". The word "wall" should be replaced with "walls". Appropriate correction is required.

Claim 1 is objected to because of the following informalities: Claim 1 recites the following limitation: "located in parallel about a center point were mail pieces will be placed". The word "were" should be replaced with "where". Appropriate correction is required.

Claim 3 objected to because of the following informalities: Claim 3 recites the following limitation: "located 1 meter (39.3 inches) in parallel about a center point were mail pieces will be placed". The word "were" should be replaced with "where". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 recites the limitation "the wall/ceiling/floor surfaces". There is insufficient antecedent basis for this limitation in the claim. Specifically, there is no mention of a floor surface in Claim 1.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "the wall/ceiling/floor surfaces are painted with aluminum or paneled with reflectant material" is unclear. Specifically, it is unclear as to which surfaces are being painted or paneled. Are all three surfaces (the wall, ceiling, and floor) painted or paneled or is it only one or two of the three? It is suggested that the applicant rewrite the claim without using "/" to distinguish between the different surfaces.

Claim 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 is a method claim that does not recite any active method steps and is therefore indefinite. The applicant has only listed physical structural features and this is not proper claim format for a method claim.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites, "the average surface intensity will be at least

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4690  $\mu\text{W}/\text{cm}^2$ ". The phrase "will be" is not an active limitation and should be replaced with language such as "is".

Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 3 both recite the following limitation: "about a center point were mail pieces will be placed for disinfection. The phrase "will be" is not an active limitation and should be replaced with language such as the word "are".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Stemmler (US 2003/0132279).

Stemmler discloses a method and system for decontaminating mail that has been contaminated with anthrax bacteria and anthrax spores (see paragraphs [0001]-[0015]). The method comprises mounting ultraviolet lights (430, 432) in parallel inside a mailbox

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(410) and about a center point where mail pieces will be placed for disinfection (see figure 4a and paragraph [0063]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stemmler as applied to claim 1 above, and further in view of Turcotte (U.S. Patent No. 6,818,177).

Stemmler discloses that the mailbox (410) is shielded to prevent UVC radiation from escaping and is reflective (see paragraph [0063]). However, Stemmler does not specifically disclose that the surfaces are painted with aluminum or paneled with a reflective material.

Turcotte discloses an ultraviolet air purification system wherein the ducts of the system are covered with a reflective material to maximize the effectiveness of the UV

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radiation. The reflective material may be a reflective painting, a reflective coating or lamination. One preferred embodiment is to coat the ducts with aluminum paint.

Aluminum has a high reflectancy value for UV light (see column 7, lines 38-51).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Stemmler and replace the reflective surfaces with a functionally equivalent alternative such as reflective aluminum paint in order to maximize the effectiveness of the UV radiation as taught by Turcotte.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stemmler.

Stemmler does not disclose 18 fixtures, each containing 4 lamps putting out 13.8 watts of C-band ultraviolet light energy each, and located 1 meter (39.3 inches) in parallel to each other.

Although Stemmler does not specifically teach 18 fixtures, each containing 4 lamps, modifying the number of lamps and fixtures would have been obvious at the time of applicant's invention because of the legal precedent established by prior case law St. Regis Paper Co. v. Bemis Co. Inc. 193 USPQ 8, 11 (7<sup>th</sup> Cir. 1977) which states that duplication of parts for a multiplied effect has no patentable significance, it would have been well within the purview and obvious to one of ordinary skill in the art at the time the invention was made to provide additional fixtures with ultraviolet lamps for enhancing the effects of sterilization in the chamber.

Although Stemmler does not teach lamp fixtures located 1 meter (39.3 inches) in parallel to each other or lamps that specifically put out 13.8 watts of UVC light energy, it would have been obvious to modify the distance between the lamp fixtures and the specific output of the UVC lamps because of the legal precedent established by prior case law In re Aller, 105 USPQ 233 (CCPA 1955) which states that optimum or workable ranges discovered by routine experimentation is ordinarily within the skill of the art.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stemmler.

Stemmler discloses that the UVC lamps provide at least  $20 \text{ mW/cm}^2$  (equivalent to  $20,000 \text{ } \mu\text{W/cm}^2$ ) of 260nm light, which is four times the average surface intensity claimed by the applicant (see paragraph [0063]). Although Stemmler does not specifically teach that the mail contaminated with anthrax spores is sterilized in 5 minutes or less, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the light intensity used by Stemmler inside the mailbox would in fact sterilize the mail in 5 minutes or less.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,753,536 B2 to Humphreys et al. (claims priority to provisional applications filed 12/5/2001 and 11/28/2001)



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U.S. Patent Application publication 2004/0022665 to Lu (claims priority to a provisional application filed 11/26/2001)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Conley whose telephone number is 571-272-8414. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 29, 2005

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JOHN KIM  
SUPERVISORY EXAMINER  
GROUP 1700